REMARKS

I. STATUS OF THE CLAIMS

None of the original claims are amended herein.

New claims 20-23 are added. Support for the new claims is found, for example, in FIG. 1 and the corresponding disclosure on page 9, line 5, through page 12, line 4, of the specification.

In view of the above, it is respectfully submitted that claims 1-23 are currently pending.

II. REJECTIONS OF CLAIMS 1-19 UNDER 35 U.S.C. §103 AS BEING UNPATENABLE OVER KASAHARA ET AL (U.S. PATENT 6,804,469) IN VIEW OF YOKOYAMA (U.S. PATENT 6,658,211) AND FURTHER IN VIEW OF MARONEY (U.S. PATENT 6,681,079)

In the present invention as recited, for example, in claim 1, Applicant specifically recites a "monitoring signal transmission means for transmitting over the upstream link a monitoring request signal including a monitoring command signal with a first optical wavelength and a response carrier wave with a second optical wavelength which is different from the first optical wavelength, the monitoring command signal requesting a specified repeater to provide information about operating status thereof, the response carrier wave being a carrier wave for the specified repeater to return the requested information as a monitoring response signal."

In the Office Action, Examiner cites to (column 3, lines 50-67 and column 4, lines 1-21, column 5, lines 43-59) of Kasahara et al. as sections that purport to teach Applicant's invention. However, a review and evaluation of these sections reveal that Kasahara fails to teach, disclose, or suggest the specifics of Applicant's claimed invention. More specifically, while Kasahara teaches a plurality of optical transmitters and optical receivers that carry out optical communications in both the uplink and downlink direction, Kasahara fails to teach, disclose or suggest a monitoring signal transmitter that transmits in the upstream link a *monitoring request signal that includes a monitoring command signal with a first optical wavelength, and a response carrier wave with a second optical wavelength* that is different from the first optical wavelength such that the monitoring command signal requests a specified repeater to provide information about its operating status, and the response carrier wave being a carrier wave for the specified repeater to return the requested information. In Kasahara, the optical transmitter is installed in at least one of the two terminal stations for transmitting to the repeater an optical signal that includes an operation command to notify a state of a predetermined supervisory target. Here, in Kasahara, a response signal generator is installed in the repeater and serves to receive the optical signal transmitted from the optical transmitter and for generating a response optical

signal indicative of the status of the target (repeater). The transmitted signal in Kasahara does not include both the command signal and a response carrier wave as recited, for example, in claim 1. Neither Kasahara, Yokoyama nor Maroney teach this feature of Applicant's claimed invention.

Furthermore, in the Office Action, the Examiner concedes that Kasahara fails to specifically teach a coupler selectively passing the first optical wavelength and reflecting back the second optical wavelength. However, the Examiner asserts that Yokoyama teaches an optical coupler by virtue of the fiber grating filter 5 as shown in figure 4, which Examiner contends can pass the first optical wavelength and reflect back the second optical wavelength. More specifically, it appears that the Examiner believes that the fiber grating filter 5 as shown in Yokoyama in figure 4 at 5 corresponds to the upstream wavelength selection means of claim 1. It is respectfully submitted that the Examiner appears to have ignored the functional differences between the fiber grating filter 5 of Yokoyama and Applicant's upstream wavelength selection means of claim 1.

For example, Yokoyama's optical fiber grating filter reflects *only* an optical signal having a specified wavelength in the WDM (wavelength division multiplex) optical signals inputted to the optical fiber grating filter 5 (see Yokoyama at column 4, lines 57-60). That is, Yokoyama appears to reflect a particular wavelength back to the optical splitter 4. However, it is not clear that the fiber grating filter 5 of Yokoyama passes another wavelength at the same time. **That is, Yokoyama fails to teach the upstream wavelength selection means for "selectively passing the first wavelength"** as specifically recited in claim 1. Furthermore, as specifically recited in claim 1 of Applicant's present invention, the upstream wavelength selector is coupled to the first port of the upstream optical coupler for selectively passing the first optical wavelength and reflecting back the second optical wavelength. This serves to extract the monitoring command signal from the monitoring request signal while reflecting the response carrier wave back to the first port. Neither Kasahara, Yokoyama nor Moroney teach, suggest or disclose these specifics of Applicant's claimed invention.

Furthermore, please note that in the present invention as recited, for example, in claim 1, the modulation control means is coupled to the excitation unit to modulate the pump beam with a *response message signal*, whereby the response message signal is *superimposed* on the *response carrier wave* propagating on the upstream link. That is, the modulation control means modulates a pump beam supplied into the *upstream link,* thereby modulating the response carrier wave propagating on the *upstream link.* The resulting response signal is routed from the upstream link to the downstream link via the upstream optical coupler and upstream wavelength selection means. However, in Kasahara, the repeater amplifiers return a response

signal by modulating WDM signals on the *downstream* link using a downstream optical amplifier 6b. Kasahara does not disclose or teach Applicant's claimed invention as recited in, for example claim 1, wherein "the response message signal is superimposed on the response carrier wave propagating on the upstream link and the resulting monitoring response signal reaches said upstream optical coupler" of the modulation control means.

Moreover, the Examiner asserts that Kasahara discloses a downstream optical coupler in column 3, lines 50 to 67 and column 4, lines 1 to 27; column 6, lines 28 to 44. See, for example, Office Action at page 3, lines 18-22. However, it is respectfully submitted that these cited sections of Kasahara recite nothing about couplers. Instead, Kasahara shows WDM couplers in FIG. 3. But Kasahara fails to provide "a port to accept the monitoring response signal from the second port of said upstream optical coupler and direct the monitoring response signal into the downstream link", which the claimed downstream optical coupler has as specifically recited by Applicant in, for example, claim 1.

Although the above comments are specifically directed to claim 1, it is respectfully submitted that the comments would be helpful in understanding differences of various other claims over the cited references.

III. CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: May 11, 2005

By: _____
Paul I. Kravetz
Registration No. 35,230

1201 New York Avenue, NW, Suite 700
Washington, D.C. 20005
Telephone: (202) 434-1500
Facsimile: (202) 434-1501